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August 14, 2006

AGENDA ITEM 7d

TO: MEMBERS OF THE INVESTMENT COMMITTEE

I. SUBJECT: Internal Management of International Indexation Assets

II. PROGRAM: Global Equity

III. RECOMMENDATION: Staff recommends bringing the remainder of CalPERS'

international equity index assets under internal management. An opinion letter from Wilshire

Associates is shown as Attachment 1.

IV. ANALYSIS:

Executive Summary

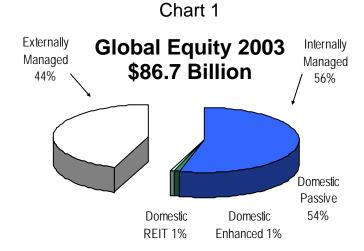
In April 2005, CalPERS' Investment Committee approved the internal management of a portion of the international equity index portfolio that historically had been externally managed. This action reflected the growth in internal capability engendered through the addition of experienced investment professionals and broadened technological tools. Reflecting the success of this effort, the internal portion of the portfolio grew to over \$13 billion or half of the total portfolio by December 2005.

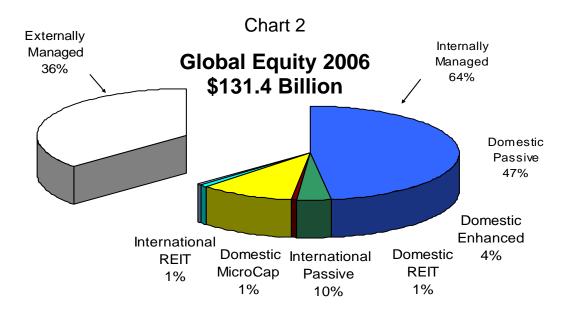
This internalization effort has resulted in management fee cost savings of approximately \$1.3 million annually, and value added portfolio returns of \$43 million versus the benchmark since inception. The value added has stemmed from opportunistic management of the portfolio in a rigorously risk-controlled environment. Additionally, this capability has facilitated internalization of all global equity transition activity and laid the foundation for future value added strategies.

Staff seeks Investment Committee approval to internalize the remainder of the international equity index assets. This action will generate further cost savings and create consistency with the full internal management of all global equity index portfolios.

Background

CalPERS has significantly expanded its internal equity asset management capabilities over the past several years. This expansion has been directed by the CalPERS Board and senior staff with support from the organization's general pension consultant, Wilshire Associates. At the February 14, 2005 Investment Committee meeting, staff recommended and the Committee approved, bringing in-house up to 50% of the international equity index assets. This agenda item is Attachment 2.





As a result of this and other efforts, the proportion of global equity assets managed internally has grown from 56% in June of 2003 to almost 64% currently. In dollar terms, staff internally managed \$48.6 billion of CalPERS' equities in 2003 and now manages \$83.9 billion. If the Investment Committee approves this recommendation, the amount of CalPERS' global equity capital managed internally will be \$97.2 billion or 74%. The expansion of CalPERS' internal management effort has extended to a range of mandates with domestic, international, REIT, large capitalization, micro capitalization, passive and enhanced strategies. Portfolio and manager transition activity is also being executed internally on a global basis. Charts 1 and 2 above illustrate the changes to the internal equity program in the last three years.

Staffing / Resources

To facilitate this effort, global equity staff has grown both in number and skill-set. Key additions include Christianna Wood, CFA, Senior Investment Officer of Global Equity, joining CalPERS from Denver Investment Advisors; Eric Baggesen, CFA, Senior Portfolio Manager of Internal Equity having joined from State Street Global Advisors (SSgA); Dan Bienvenue, CFA, Portfolio Manager of Internal International Equity joining from Barclays Global Investors (BGI); and Steve Carden, CFA and Don Pontes, CFA, Investment Officer III's in Internal Equity, both also from BGI. Among the five, they have more than 70 years of industry experience, with over 40 of those years being in global quantitative portfolio management and trading.

Additionally, the systems and infrastructure employed in this effort have also progressed significantly. New technologies have been internalized to aid staff in managing portfolios, analyzing risk profiles, trading securities, and effectuating settlement. This procurement of staff and tools has resulted in a robust asset management function with a very strong capability set.

Performance / Cost Savings

The trend toward increased in-house management of equity assets has resulted in a great deal of success and value added in terms of both excess investment performance as well as cost savings. As is evident from Table 1 below, performance of the internal equity program has, as a whole, consistently met or exceeded expectations and targets.

Specific to the Internal International Equity Index portfolio, performance has been excellent, with consistent out-performance averaging three basis points per month for a cumulative out-performance since inception (May 2005) of 51 basis points while maintaining an expected tracking error of less than 20 basis points. This performance has resulted in over \$43 million in value added versus the benchmark and an information ratio (the ratio of average excess return versus the volatility of the excess return) of 2.5 for 14 months.

Table 1 outlines some of the results generated by internal equity strategies. The majority of the portfolios have demonstrated a potential to add value relative to a variety of benchmarks.

Table 1
Internal Equity Performance – Through 6/06 *

	Market Value	1 Yr	3 Yr	5 Yr	Inception
	6/06 - \$B	%	%	%	%
2500 Index Fund	\$55.5	9.59	12.47	3.72	11.06
Wilshire 2500		9.50	12.40	3.48	10.88
Value Added		0.09	0.07	0.24	0.18
Information Ratio		0.6	0.5	1.6	1.2
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International Equity	\$13.7	27.32	-	-	25.23
CalPERS FTSE Dev World Ex US		26.98	-	-	24.72
Value Added		0.34	-	-	0.51
Information Ratio		2.8	-	-	2.5
Dynamic Completion Fund	\$5.6	8.16	9.70	2.17	3.24
DCF Index		8.42	9.66	1.89	2.96
Value Added		- 0.26	0.04	0.28	0.28
Information Ratio		- 0.7	0.1	0.8	0.8
Damastic Enhanced Index	¢2.7	11 /1	15 44	F 2/	2.02
Domestic Enhanced Index	\$3.7	11.61	15.44	5.26	2.83
Wilshire 2500		9.50	12.40	3.48	1.28
Value Added		2.11	3.04	1.78	1.55
Information Ratio		1.6	2.3	1.4	1.2
Micro Cap	\$0.8	17.91	-	-	14.98 **
PERS Custom Micro cap		18.75	-	-	18.70
Value Added		- 0.84	-	-	- 3.72
Information Ratio		- 0.5	-	-	-2.2
Enhanced Core PREES	\$0.1	21.36			31.68
CalPERS Tactical REIT	Φ U. I	20.50	-	-	31.00
Value Added		0.86		-	0.45
Information Ratio		1.1	-	-	0.43
IIIIOIIIIalioii Ralio		1.1	-	-	0.0
PREES Extended Market	\$0.3	21.97	28.64	-	21.57
CalPERS Strategic Non-Core REIT		21.28	28.54	-	21.74
Value Added		0.69	0.10	-	- 0.17
Information Ratio		1.0	0.2	-	-0.3

^{*} Only includes portfolios with a minimum one-year performance record.

In addition to the performance attributes, cost savings associated with internally managed strategies are another significant benefit and are not reflected in the strong performance listed in Table 1. The cost of internal management is quite

^{**} Reflects transition costs to a new benchmark.

low relative to external alternatives, with the fixed costs of staff and technology being far lower than the cost of external asset manager fees. Implicit cost savings result as well, with trading costs and market impact in transitions and allocation shifts being materially lower when carried out internally relative to external transitions.

With respect to the internalization of the remainder of the international equity index portfolio, cost savings are expected to be an additional \$1.3 million annually (or \$2.6 million in total for the entire \$26 billion), stemming from a one basis point management fee on the \$13 billion currently under external management. Because of the scalable nature of internal management, this reduction in costs flows entirely to the bottom line. With internal staff and technology platforms already in place, any incremental cost of managing additional assets internally is negligible.

Rationale

There are numerous reasons to internalize the remainder of CalPERS' international equity index assets including cost savings, portfolio performance, and consistency. These benefits are in addition to those garnered when the Investment Committee first gave its approval and CalPERS began internally managing international equity assets. A list of opportunities and risks is as follows:

Opportunities:

- Cost savings, estimated at an additional \$1.3 million annually
- Performance advantage, due to staff's ability to focus on value added opportunities
- Consistency with CalPERS' treatment of domestic equity indexation, having been 100% internally managed since 1988
- Expansion of internal capabilities, including the ability to effectuate transitions and allocation shifts in a discrete manner within CalPERS
- Synergies for future product development including international versions of existing successful, domestic, internally-managed active and enhanced strategies
- Staff development

Risks:

- Greater dependency upon internal staff (though this is substantially mitigated with several internal equity team-members cross-trained on management of the various portfolios)
- Loss of redundancy in functions (though finding a provider of external indexation in relatively short order in the unlikely event that the need should arise would be expected to be easily accomplished)

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It is important to point out that internalizing the remainder of CalPERS' international equity index assets is in no way a reflection on the quality if the job done by the external manager, State Street Global Advisors. SSgA's management of the CalPERS international equity index mandate has met all objectives, with performance exceeding the benchmark. CalPERS staff expects to maintain a strong relationship with SSgA and retain various other mandates with them, including equity strategies such as enhanced indexation and an environmental investing strategy. Further, CalPERS plans to continue to partner with SSgA in implementation of additional internally managed strategies through SSgA's Advanced Research Center (ARC) and CalPERS' Global Equity Developmental Portfolio.

Internalizing the remainder of the international index assets stems entirely from the inherent advantages available in internally managing index assets. These advantages include lower costs and the availability of relatively low levels of outperformance at comparably low levels of risk. The potential out-performance is derived from staff's ability to proactively manage events such as corporate actions and index changes solely from CalPERS' perspective. It is for these reasons that CalPERS' domestic equity index portfolios have been entirely internally managed for nearly 20 years and thus the move to achieve consistency on the international side.

Implementation and Compliance

The incremental assets resulting from internalization of the remainder of CalPERS' international equity index mandate would be added to the existing internal international equity index portfolio. As such, the assets would be managed using the same robust infrastructure currently in place. Staff responsible for the portfolio would be the internal international equity management team consisting of Dan Bienvenue, CFA and Don Pontes, CFA with oversight from Eric Baggesen, CFA and primary back-up coverage provided by Steve Carden, CFA. All of these staff members have considerable private-sector experience in international equity portfolio management and trading. Consistency in the Operations staff would also be the case with any effects on workload being minimal and existing staff capability and effectiveness being excellent.

From a compliance standpoint, there would be no change. The investment policy in place for the existing portfolio would remain the same with the only difference being asset size. Compliance with the investment policy would be ensured using the same technology and protocols applied to all internally managed portfolios.

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Finally, concerning the actual process by which the external assets would be internalized, it is anticipated that any costs and disruption would be minimal in this respect as well. With the external assets currently being managed as a fully-replicated index portfolio, moving the assets to the internal portfolio will be effectuated through a security transfer "in-kind" from one account to another requiring zero or near-zero trading.

Materiality and Complexity

At \$13 billion, this is an inherently material initiative. Moreover, with a one basis point management fee and the historical and expected performance differential, the potential cost savings and value added performance to CalPERS are very material as well.

From a complexity standpoint, however, potential effects are minimal. There will be some increased complexity in terms of the liquidity effects of managing a larger portfolio, but these are offset by the fact that CalPERS will now have only one portfolio executing in the marketplace as opposed to two. Additionally, rather than having two portfolios for CalPERS staff to oversee, there will be only one and it will be operated with entirely existing resources and procedures.

V. STRATEGIC PLAN:

Internalization of the remainder of CalPERS' international equity index assets is consistent with Goal IX: Achieve long-term, sustainable, risk adjusted returns.

VI. RESULTS/COSTS:

Costs resulting from internalization of CalPERS' entire international equity index mandate are expected to be near zero. Cost savings and the potential for value added, however, are expected to result in a substantial benefit to the Plan. At a minimum, the incremental cost savings will be \$1.3 million annually, representing the savings of the external manager fee. Further benefits are expected due to the performance advantages associated with internal management.

Daniel J. Bienvenue Portfolio Manager	Eric B. Baggesen Senior Portfolio Manager		
Russell Read	Christianna Wood		
Chief Investment Officer	Senior Investment Officer		